

REMARKS

Claims 1-38 were previously pending in this application. Claims 4, 8, 13, 15, 23, 27, 31, and 34 have been amended in a non-narrowing manner to further define the claimed invention and not to distinguish over the prior art. As a result, claims 1-38 are pending for examination with claims 1, 13, 23, and 26 being independent claims. Applicant has also amended the specification to correct minor typographical errors. No new matter has been added.

Please amend the Attorney Docket Number from 200352 to MS# 129990.01.

Objections

Claims 4, 6, 13, 15, 16, 18, 25, 26, 31, and 32 are objected to for informalities. Specifically, claims 4, 6, 15-16, 18, 25-26 and 31-32 are not consistent in spelling 'useable' and 'usable.' In addition, claim 13 should read 'the' computer system and 'the' cache.

Although Applicant does not believe that the difference in spelling for 'useable' and 'usable' affects the patentability of the claims, Applicant has amended claims 4, 13, 15, and 31 to reference "usable" rather than "useable" to further prosecution of the application. Applicant has also amended claim 13 to recite "a computer system" and "the cache." Accordingly, withdrawal of this objection is respectfully requested.

Rejections under 35 U.S.C. § 112

Claims 1-38 stand rejected under 35 U.S.C. § 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The Office Action stated that claim 1 was unclear as to how the "user context data" and "global data" interact to achieve the claimed invention. Applicant believes that the claim as originally filed is clear in noting that the global data is manipulated in carrying out the first sub-task and the second sub-task, and the user context data is sent to the second server to be used by the second server in manipulating the global data to carry out the second sub-task using the user context data. The specification describes the global data as containing the functions and data common to all user threads, and

describes the user context data as containing data identifying and/or enabling a specific procedure implementation. For example, as noted on page 15, lines 14-17 of the specification, "The user context data may include the location of a buffer to receive the results of the search, a network address to send the results to, a user ID to check access rights, and a pointer to the packet containing the original query that initiated this index tree search." In this manner, the specification defines global data and user context data to clearly construct claim 1. Accordingly, Applicant respectfully requests withdrawal of the rejection.

Dependent claims 2-12 and 28-38 depend from independent claim 1, and are allowable for at least the foregoing reasons.

The Office Action made a similar rejection of claim 13 as made with respect to claim 1. Although Applicant believes claim 13 is clear as originally presented, Applicant has amended this claim only to further prosecution of the application. Specifically, Applicant has amended claim 13 to recite, "each server contains instructions for performing its respective sub-task on the global data using the user context." Accordingly, Applicant respectfully requests withdrawal of the rejection.

Dependent claims 14-22 depend from independent claim 13, and are allowable for at least the foregoing reasons.

The Office Action stated that claim 26 was unclear as to how the "user context data" and "global data" interact to achieve the claimed invention. Applicant believes that claim 26 as originally filed is clear by noting that the first server defines at least one function for performing a sub-task of a computer-executable procedure to manipulate a global data set. The first server executes this function in response to the receipt of a first work packet which contains user context information usable by the first server to perform the sub-task (e.g., manipulate the global data set). In this manner, the user context data is received in a work packet to be used in manipulating a global data set in performing a sub-task of a computer-executable procedure. Accordingly, Applicant respectfully requests withdrawal of the rejection.

Dependent claim 27 depends from independent claim 26, and is allowable for at least the above-noted reasons.

The Office Action rejected claims 4, 8, 31, and 34 as not clearly setting forth where the “first work packet” is received, or what is done in response to the receiving of the first work packet. In response, Applicant has amended claims 4, 8, 31, and 34 to correct minor typographical errors in the punctuation. Accordingly, Applicant believes that the claims are in allowable form.

The Office Action rejected claim 23 as being unclear as to how the “user context” is used or what is achieved out of its being transferred “between at least two servers.” In response, Applicant has amended claim 23 to recite that at least one function for performing a sub-task of a computer-executable procedure to manipulate a global data set is “using the user context information” of the work packet. In this manner, claim 23 as amended clearly recites how the user context is used and what is achieved out of its being transferred between at least two servers. Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. § 112 be withdrawn.

Dependent claims 24-25 depend from independent claim 23, and are allowable for at least the foregoing reasons.

The Office Action also rejected claim 28 as being unclear as to whether the claim is independent or dependent. As noted in 35 U.S.C. § 112, ¶4, “a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.” Similarly, claim 28 is a dependent claim of independent claim 1, since claim 28 contains a reference to claim 1 and specifies a further limitation of the subject matter claimed, e.g., that the method of claim 1 is performed by computer-executable instruction of a computer-readable medium. Moreover, the transmittal of the present application specifically noted that the number of independent claim was 4 (e.g., claim 1, 13, 23, and 26), leading to a filing fee of \$1,162.00. This amount was accepted by the Patent and Trademark Office as sufficient, as indicated in the filing receipt dated December 7, 1999. In addition, Applicant’s responses filed December 19, 2003, and June 10, 2004, each include a claim diagram depicting the independent and dependent claims of the present application. Each of these diagrams specifically display claim 28 as depending from independent claim 1. Thus, the U.S. Patent and Trademark Office previously accepted Applicant’s determination of claim 28

as a dependent claim. Accordingly, Applicant respectfully requests withdrawal of the rejection of claim 28.

Dependent claims 29-38 depend from independent claim 1 through dependent claim 28, and are allowable for at least the foregoing reasons.

Rejections under 35 U.S.C. § 103

Claims 1-4, 6, 10-11, 13-16, 18, 20-21, 23-32, and 36-37 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,330,583 to Reiffin (hereinafter Reiffin) in view of U.S. Patent No. 6,330,643 to Arimilli et al. (hereinafter Arimilli) in view of U.S. Patent No. 6,425,021 to Ghodrat et al. (hereinafter Ghodrat).

Initially, Applicant notes that the § 102(e) priority date of Arimilli is its filing date, February 17, 1998; and the § 102(e) priority date of Ghodrat is its filing date of November 16, 1998. However, § 102(e) requires that the priority date of the reference be compared to the date of invention of the present application. (*See*, 35 U.S.C. § 102(e) stating that “A person shall be entitled to a patent unless -- ... (e) the invention was described in ... (2) a patent granted on an application for patent by another filed in the United States before the invention by the application for patent”). Applicant’s date of invention is at least as early as, if not earlier than February 16, 1998. The attached inventors’ declaration under 37 C.F.R. § 131 notes that the date of invention of the present application predates the earliest priority date of both Arimilli and Ghodrat. Specifically, the Applicant prepared a paper and submitted that paper to a confidential review for publication. A copy of the submission is included as Exhibit A to the attached declaration. This paper submission was rejected for publication on February 3, 1998, which predates the priority dates of both Arimilli and Ghodrat. Accordingly, Arimilli and Ghodrat are not proper references to be applied under 37 C.F.R. § 102(e), and thus, are not proper prior art references under 37 C.F.R. § 103. Therefore, the rejection of claims 1-4, 6, 10-11, 13-16, 18, 20-21, 23-32, and 36-37 under Reiffin in view of Arimilli and Ghodrat is improper and should be withdrawn.

Assuming without agreeing that Arimilli and Ghodrat are proper references under § 102(e), the cited references of Reiffin, Arimilli, and Ghodrat, alone or in combination,

do not teach or suggest the features of claims 1-4, 6, 10-11, 13-16, 18, 20-21, 23-32, and 36-37.

Reiffin is directed to partitioning a large-computer intensive network task into a plurality of parallel subtasks to be executed simultaneously in the background by respective workstations without substantial interference with the local task being executed concurrently in the foreground. (*See*, Reiffin, Abstract).

Arimilli is directed toward a method of avoiding deadlocks in a multi-processor computer system between two or more caches which are sharing a value corresponding to a system memory block. (*See*, Arimilli, Col. 6, lines 53-56). Deadlocks are resolved by utilizing a cache coherency protocol, specifically assigning a 'Global Recent' state for providing an indication of the most recently referenced block in a level of the cache hierarchy that would otherwise have a Shared indication. (*See*, Arimilli, Col. 8, lines 48-51 and Col. 12, lines 43-49). In this manner, the Global Recent state can be used to ensure that only one cache at a level of the cache hierarchy will persist in any attempt to secure exclusive control of a previously shared memory address, such as through a DClaim operation. (*See*, Arimilli, Col. 9, lines 6-10).

Claim 1

Whether it may be possible to modify Reiffin in view of Arimilli and in view of Ghodrat, the combination does not teach or suggest the elements recited in independent claim 1. Applicant agrees with the Examiner that Reiffin does not teach or suggest first and second servers optimized to execute in cache such that, for each server, global data in cache is given priority over user context data in cache, as recited in claim 1. However, the Office Action characterizes Arimilli's method of reducing collision of cache operations as giving priority of global data over user context data in cache. (*See*, Office Action, page 5, ¶9). This characterization is misplaced. Rather, the cited sections of Arimilli (col. 6, line 53- col. 7, line 29; col. 11, lines 45-67; and col. 12, lines 36-63) describe basing priority on time of access. Specifically, Arimilli grants priority to the most recent request for an operation. Moreover, Arimilli grants priority to access information stored in cache or in other words, grants priority to perform an operation on information in cache, e.g., to modify the cache memory, not storage in the cache. There

is nothing in the cited sections of Arimilli to teach or suggest that priority is given to global data over user context data in cache.

Accordingly, claim 1 distinguishes over Reiffin, Arimilli, and Ghodrat, both individually and in combination, such that the rejection under § 103 should be withdrawn. Claims 2-12 and 28-38 depend from independent claim 1 and are patentable for at least the foregoing reasons.

Claim 13

Whether it may be possible to modify Reiffin in view of Arimilli and in view of Ghodrat, the combination does not teach or suggest the features recited in independent claim 13. Applicant agrees with the Examiner that Reiffin does not teach or suggest each server being optimized to execute in the cache such that, for each server, global data in the cache is given priority over user context data in the cache, as recited in claim 13. The Office Action's characterization of Arimilli as teaching this feature is misplaced. Rather, as noted above with respect to claim 1, the cited sections of Arimilli (col. 6, line 53- col. 7, line 29; col. 11, lines 45-67; and col. 12, lines 36-63) describe basing priority on time of access, and priority determining priority of operation of the cache, not storage in the cache. There is nothing in the cited sections of Arimilli to teach or suggest that global data in the cache is given priority over user context data in the cache.

Accordingly, claim 13 distinguishes over Reiffin, Arimilli, and Ghodrat, both individually and in combination, such that the rejection under § 103 should be withdrawn. Claims 14-22 depend from independent claim 13 and are patentable for at least the foregoing reasons.

Claim 23

Whether it may be possible to modify Reiffin in view of Arimilli and in view of Ghodrat, the combination does not teach or suggest the features recited in independent claim 23. Applicant agrees with the Examiner that Reiffin does not teach or suggest each server being optimized to execute in the cache such that, for each server, the global data set in the cache is given priority over user context information in cache, as recited in claim 23. However, The Office Action's characterization of Arimilli as teaching this feature is misplaced. Rather, as noted above with respect to claim 1, the cited sections of Arimilli (col. 6, line 53- col. 7, line 29; col. 11, lines 45-67; and col. 12, lines 36-63)

describe basing priority on time of access, and priority determining priority of operation of the cache. There is nothing in the cited sections of Arimilli to teach or suggest that the global data set in the cache is given priority over user context information in the cache.

Accordingly, claim 23 distinguishes over Reiffin, Arimilli, and Ghodrat, both individually and in combination, such that the rejection under § 103 should be withdrawn. Claims 24-25 depend from independent claim 23 and are patentable for at least the foregoing reasons.

Claim 26

Whether it may be possible to modify Reiffin in view of Arimilli and in view of Ghodrat, the combination does not teach or suggest the elements recited in independent claim 26. Applicant agrees with the Examiner that Reiffin does not teach or suggest each server being optimized to execute in cache such that, for each server, the global data set in cache is given priority over user context information in cache, as recited in claim 26. However, The Office Action's characterization of Arimilli as teaching this feature is misplaced. Rather, as noted above with respect to claim 1, the cited sections of Arimilli (col. 6, line 53- col. 7, line 29; col. 11, lines 45-67; and col. 12, lines 36-63) describe basing priority on time of access, and priority determining priority of operation of the cache. There is nothing in the cited sections of Arimilli to teach or suggest that the global data set in cache is given priority over user context information in cache.

Accordingly, claim 26 distinguishes over Reiffin, Arimilli, and Ghodrat, both individually and in combination, such that the rejection under § 103 should be withdrawn. Claim 27 depends from independent claim 26 and is patentable for at least the foregoing reasons.

Claims 5 and 17

Claims 5 and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Reiffin in view of Arimilli in view of Ghodrat in view of U.S. Patent No. 6,266,708 to Austvold et al. (hereinafter Austvold).

Claim 5 depends from independent claim 1 and claim 17 depends from independent claim 13, which as noted above are patentable over the cited references. Accordingly, claims 5 and 17 are patentable for at least the foregoing reasons, and withdrawal of this rejection is respectfully requested.

Claims 7-8, 19, and 33-34

Claims 7-8, 19, and 33-34 stand rejected under 35 U.S.C. § 103 as being unpatentable over Reiffin in view of Arimilli in view of Ghodrat in view of U.S. Patent No. 5,485,609 to Vitter et al. (hereinafter Vitter).

Claims 7-8 and 33-34 depend from independent claim 1 and claim 19 depends from independent claim 13, which as noted above are patentable over the cited references. Accordingly, claims 7-8, 19, and 33-34 are patentable for at least the foregoing reasons, and withdrawal of this rejection is respectfully requested.

Claims 9 and 35

Claims 9 and 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over Reiffin in view of Arimilli in view of Ghodrat in view of Vitter in view of Austvold.

Claims 9 and 34 depend from independent claim 1, which as noted above is patentable over the cited references. Accordingly, claims 9 and 35 are patentable for at least the foregoing reasons, and withdrawal of this rejection is respectfully requested.

Claims 12, 22, and 38

Claims 12, 22, and 38 stand rejected under 35 U.S.C. § 103 as being unpatentable over Reiffin in view of Arimilli in view of Ghodrat in view of U.S. Patent No. 6,298,382 to Doi et al. (hereinafter Doi).

Claims 12 and 38 depend from independent claim 1 and claim 22 depends from independent claim 13, which as noted above are patentable over the cited references. Accordingly, claims 12, 22, and 38 are patentable for at least the foregoing reasons, and withdrawal of this rejection is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If

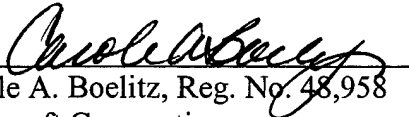
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there is a fee occasioned by this response, including an extension fee, please charge any deficiency to Deposit Account No. 50-0463

Respectfully submitted,
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